

CLAIMS

What is claimed is:

Sub B1
5 1. A sensing apparatus comprising a housing
and sensing means, characterised in that the housing
comprises a plurality of separable elements to which
data acquired by the sensing means is transferred, and
which are releasable, after data transfer, from the
10 housing.

2. A sensing apparatus according to claim 1,
wherein the sensing means includes or is connected to
electronic memory means which temporarily stores the
15 acquired data.

Sub A1
3. A sensing apparatus according to claim 1
or claim 2, wherein the sensing apparatus further
comprises an actuatable port means, openable to release
20 the separable elements.

4. A sensing apparatus according to any of
the preceding claims, wherein the separable elements
each comprise a rigid casing with a sealable aperture,
25 the casing surrounding data storage means in which the
acquired data is stored for transfer to the surface.

Sub B1
30 5. A sensing apparatus according to claim 4,
wherein the sealable aperture is formed by an aperture
surrounded by a sealing material, with the sealing
material being heat treatable within the housing so as

WO 01/04661

PCT/GB00/02697

to provide a fluid-tight seal which is continuous with the casing surface.

sub
A2

6. A sensing apparatus according to any of the preceding claims, wherein the separable elements are spherical.

sub
B1

7. A sensing apparatus according to claim 6, wherein each separable element comprises two hollow metal hemi-spheres, joined by a plastics seal to form a sphere.

sub
A3

8. A sensing apparatus according to any of the preceding claims, wherein the housing of the sensing apparatus and casings of the separable elements are formed from plastics material or metal.

9. A sensing apparatus according to any of the preceding claims, wherein the separable elements are configured to be either neutrally buoyant or buoyant, in relation to well fluids.

10. A sensing apparatus according to any of the preceding claims, wherein the separable elements have a diameter in the range of 1 to 10cm.

11. A sensing apparatus according to any of the claims 1 to 9, wherein the separable elements have a diameter in the range 1 to 5cm.

30

WO 01/04661

PCT/GB00/02697

Sub
A3
conc.

12. A sensing apparatus according to any of the claims 1 to 11, wherein the data is encrypted prior to transfer to the separable elements.

Sub
B1

10

13. A method of acquiring data from downhole, comprising placing downhole a sensing apparatus containing a number of separable elements and releasing the elements to carry acquired data to the surface as required.

14. Apparatus and method substantially as herein described with reference to, and as illustrated in, the accompanying drawings.